

DOCKET NO.



#10

C Barnes
4/10/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Anthony BEVERINA, et al.

ART UNIT: 2123

SERIAL NO.: 09/453,509

EXAMINER: BRODA, S.

FILING DATE: December 3, 1999

FOR: METHOD AND APPARATUS FOR RISK MANAGEMENT

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

Applicants gratefully acknowledge the determination by the Examiner that the previous Amendment was bona fide. Applicants hereby respond to the issues raised by the Examiner in the Office communication dated October 1, 2001.

2.1: Applicants hereby state that no products or services incorporated the claimed subject matter prior to December 3, 1999. After this date, some aspects of the invention were incorporated into the Site Profiler product as discussed in the July, 2000 article in The Economist entitled "Science and Technology: Serious Games" as previously noted by the Examiner. The simulations relating to training officers to command chemical-warfare response teams mentioned in that article do not incorporate the invention of the present application.

2.2: The two documents requested by the Examiner (i.e., Documents (1) and (2) listed on page 4 of the July 17, 2001 Amendment) are attached to an IDS submitted herewith.

3: Applicants have reviewed MPEP Section 310 and do not believe it is applicable.

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ADDITIONAL REMARKS

Applicants wish to further supplement their previous response. During the interview held on May 22, 2001, the Examiner expressed concern about the following statement at page 11 of the specification:

The Computational Engine 230 combines user-entered data, along with data stored in the Database Module 230, to calculate risk and all of its underlying components. The Computational Engine 230 uses elaborate artificial intelligence and simulation algorithms to analyze and assess the specific targets, threats, vulnerabilities, and ultimately, the risks at a user's site.

The Applicants submit that the above-mentioned algorithms are adequately described in the specification to allow one of ordinary skill in the art to practice the invention. The specification discloses an exemplary Bayesian network 500 in Figure 5. The highest level node of this network represents risk for an actor with a weapon and a delivery system against a target. As seen from Fig. 5, the highest level node depends upon many sub-nodes. As discussed in the specification, many of the inputs to the subnodes come directly from the GUI (graphical user interface) 202. Specification, page 13, line 10. One of ordinary skill in the art would understand that an example of such a node is the "Asset Attractiveness" node.

However, the specification also discloses that other inputs are derived from intermediate AI, simulation, or model calculations. Specification, page 13, lines 10-12. Threat vectors, blast consequences, and accessibility of a target are given as examples of nodes that require additional complex calculations to be conducted, and the specification discloses that such calculations are managed by the Computational Engine 230. Specification, page 13, lines 12-14.

One of the nodes shown in Fig. 5 is labeled "vulnerability." This node corresponds to "vulnerabilities" in the above-quoted statement. As disclosed in Fig. 5, the vulnerability node

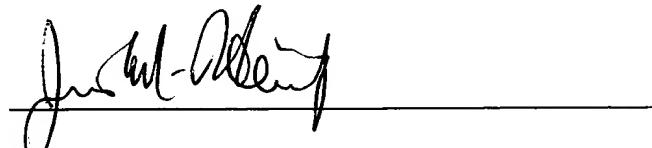
depends in part upon a consequences node. The consequences node, in turn, depends in part upon a physical effect node. The specification discloses that existing blast and NCBR (nuclear, chemical, biological and radiological) models can be used to calculate such physical effects and gives specific examples of such prior art models at page 16. Applicants respectfully submit that one of ordinary skill in the art would understand how to use such models to calculate physical effects and would understand to use the output of the models as input to the Physical Effect node of Fig. 5. The mechanics of inputting the output of the models to the input of the nodes is, of course, dependent upon the model used. A description of the types of data input to the exemplary models and the type of data output by the models and used as inputs to the physical effects nodes is discussed in detail in the specification at pages 28-42.

Another of the nodes of Fig. 5 is labeled "Accessability." The specification discloses that accessibility is determined by the vectors of approach that are calculated by the VAT 200. Specification, page 24, lines 21-22. The process of building these vectors is discussed in detail at pages 54-55 and illustrated in Fig. 37. Part of the process of building these vectors involves the Dynamics Module, which is responsible for calculating and updating the state of physical objects (e.g., a truck) during the simulation of threat ingress, is discussed at pages 55-56 and illustrated in Fig. 38. Applicants respectfully submit that the foregoing descriptions, while requiring complex algorithms, are well understood and capable of being practiced by those of ordinary skill in the art.

Applicants believe that, in view of the forgoing remarks, the application is now in condition for allowance and respectfully requests notice of the same.

Respectfully submitted,

PIPER MARBURY RUDNICK & WOLFE LLP



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DOCKET NO.: 8594-001-64

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

Re: Serial No.: 09/453,509
Applicant(s): Anthony BEVERINA, et al.
Filing Date: December 3, 1999
For: METHOD AND APPARATUS FOR RISK MANAGEMENT
Group Art Unit: 2123
Examiner: S. BRODA

SIR:

Attached hereto for filing are the following papers:

FEE TRANSMITTAL
RESPONSE TO NOTICE OF NON-RESPONSIVENESS
INFORMATION DISCLOSURE STATEMENT
FORM PTO-1449
CITED DOCUMENTS (2)
LETTER TO OFFICIAL DRAFTSMAN
FORMAL DRAWINGS (53 SHEETS)

Our check in the amount of \$ 180.00 is attached covering any required fees. In the event any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 C.F.R. 1.136 for any necessary extension of time to make the filing of the attached documents timely, please charge or credit the difference to Deposit Account No. 50-1442. Further, if these papers are not considered timely filed, then a request is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

PIPER MARBURY RUDNICK & WOLFE LLP


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FEE TRANSMITTAL

								Docket No.	8594-001-64					
								Serial No.	09/453,509					
								Filing Date	December 3, 1999					
								Inventor(s)	Anthony BEVERINA, et al.					
								Group Art Unit	2123					
TOTAL AMOUNT OF PAYMENT				\$180.00				Examiner	S. BRODA					
<p>1. <input checked="" type="checkbox"/> Applicant claims small entity status.</p> <p><input checked="" type="checkbox"/> Charge any <u>UNDERPAYMENT</u> or credit any <u>OVERPAYMENT</u> in the indicated fees to Deposit Account No. 50-1442.</p> <p><input type="checkbox"/> Charge the indicated fees to Deposit Account No. 50-1442.</p>								FEE CALCULATION (continued)						
								3. ADDITIONAL FEES						
								Large Entity		Small Entity		Fee Description		
								Fee Code	Fee (\$)	Fee Code	Fee (\$)		Fee Paid	
								105	130	205	65	Surcharge-late filing fee or oath		
								127	50	227	25	Surcharge-late provisional filing fee or cover sheet		
Large Entity		Small Entity		Fee Description				139	130	139	130	Non-English specification		
Fee Code	Fee (\$)	Fee Code	Fee (\$)					147	2520	147	2520	Ex parte reexam. fee		
101	740	201	370	Utility filing fee				115	110	215	55	1-mo. ext. of time		
106	330	206	165	Design filing fee				116	400	216	200	2-mo. ext. of time		
107	510	207	255	Plant filing fee				117	920	217	460	3-mo. ext. of time		
108	740	208	370	Reissue filing fee				118	1440	218	720	4-mo. ext. of time		
114	160	214	80	Provisional filing fee				128	1960	228	980	5-mo. ext. of time		
SUBTOTAL (1)								\$0.00	119	320	219	160	Notice of Appeal	
2. EXTRA CLAIM FEES								120	320	220	160	Appeal Brief		
tot. claims		-	20*	=	0	x	\$9	=	0	121	280	221	140	Request for Oral Hearing
ind. claims		-	3*	=	0	x	\$42	=	0	142	1280	242	640	Utility/Reissue Issue Fee
<input type="checkbox"/>	Multiple Dependent Claims							\$140	=	143	460	243	230	Design Issue Fee
Large Entity		Small Entity		Fee Description				144	620	244	310	Plant Issue Fee		
Fee Code	Fee (\$)	Fee Code	Fee (\$)					122	130	122	130	Petitions to the Commissioner		
103	18	203	9	Claims in excess of 20				126	180	126	180	IDS Submission	180.00	
102	84	202	42	Independent claims in excess of 3				581	40	581	40	Assignment		
104	280	204	140	Multiple dependent claim, if not paid				179	740	279	370	For Filing RCE		
109	84	209	42	*Reissue independent claims over original patent				169	900	169	900	Expedited Design		
110	18	210	9	*Reissue claims in excess of 20 and over original patent				OTHER (indicate below):						
SUBTOTAL (2)								\$0.00						
* or number previously paid, if greater; For Reissues, see above								SUBTOTAL (3)						\$180.00

Name	Steven B. Kelber			Registration No.			30,073	
Signature				Date	11/05/01		Telephone	202-861-3900
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ART UNIT: 2123

SERIAL NO.: 09/453,509

EXAMINER: BRODA, S.

FILING DATE: December 13, 1999

FOR: METHOD AND APPARATUS FOR RISK MANAGEMENT

LETTER TO OFFICIAL DRAFTSMAN

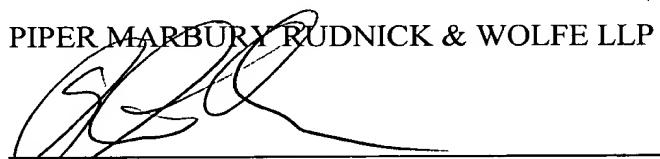
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WASHINGTON, D.C. 20231

SIR:

It is requested that the enclosed **Fifty-Three** (53) sheets of Formal Drawings comprising Figures **1-53** be entered to replace the Informal Drawings originally filed with the application.

Respectfully submitted,

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